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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/716,702

11/20/2003

Nobushige Korenaga

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7590

11/12/2004

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EXAMINER

LE, DANG D

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/716,702

Applicant(s)

KORENAGA, NOBUSHIGE

Examiner

Dang D Le

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/16/04 & 11/20/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. Figures 15-18 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebihara et al. (6,255,795) in view of Cox et al. (5,264,982).

Regarding claim 1, Ebihara et al. shows a stage apparatus comprising:

- A first-direction guide (17) which extends in a first direction (X-direction) and can move in a second direction (Y-direction) perpendicular to the first direction;

- A first driving mechanism (52A) which moves said first-direction guide (17) in the second direction (Y);
- A movable body (22) which can be guided by said first-direction guide (17) to move in the first direction (X).

Ebihara et al. does not show first electromagnetic force generating means which generates an electromagnetic force in the second direction between said movable body and said first-direction guide to keep said movable body and said first-direction guide in non-contact with each other. Ebihara et al. uses air bearings (20).

Cox et al. shows an electromagnetic force generating means (13, 15) which generates an electromagnetic force in the second direction (Y) between said movable body and said first-direction guide to keep said movable body and said first-direction guide (1) in non-contact with each other for the purpose of reducing friction.

Since Ebihara et al. and Cox et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use magnetic bearing as taught by Cox et al. for the purpose discussed above.

Regarding claims 2-5, 9, and 10, it is noted that Ebihara et al. and Cox et al. also show all of the limitations of the claimed invention.

Regarding claim 11, the method of controlling would be inherent and obvious since the prior art references meet the structural limitations of the claimed device.

4. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebihara et al. in view of Cox et al. and further in view of Hirai et al. (4,667,139).

Regarding claim 6, the apparatus of Ebihara et al. modified by Cox et al. includes all of the limitations of the claimed invention except for the second direction guide and the moveable body being provided at an intersection of the first and second directions guides.

Hirai et al. shows the second direction guide and the moveable body being provided at an intersection of the first and second directions guides for the purpose of making a table device.

Since Ebihara et al., Cox et al., and Hirai et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include the second direction guide with the moveable body being provided at an intersection of the first and second directions guides as taught by Hirai et al. for the purpose discussed above.

Regarding claims 7 and 8, it is noted that Ebihara et al., Cox et al., and Hirai et al. also show all of the limitations of the claimed invention.

Information on How to Contact USPTO

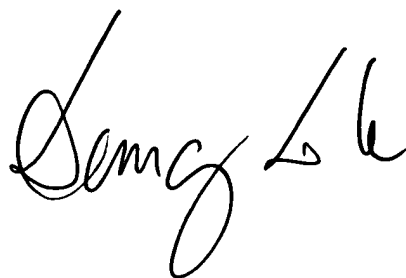
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (571) 272-2027. The examiner can normally be reached on Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11/3/04

A handwritten signature in black ink, appearing to read 'Dangle', with a stylized flourish at the end.

DANGLE
PRIMARY EXAMINER